ABSTRACT

A lithium ion secondary battery in which an abnormal overheat due to a short circuit of a current collecting portion of one electrode and an electrode material mixture of the other is prevented. The lithium ion secondary battery has: a positive electrode including a core material having a current collecting portion and a material mixture carrying portion and a material mixture layer carried thereon; a negative electrode including a core material having a current collecting portion and a material mixture carrying portion and a material mixture layer carried thereon; a separator and a porous electron-insulating layer including an inorganic oxide filler and a binder both interposed between the positive and negative electrodes; and a non-aqueous electrolyte. The insulating layer is carried on a region including surfaces of the positive electrode current collecting portion and material mixture layer, and/or a region including surfaces of the negative electrode current collecting portion and material mixture layer. The positive and negative electrodes are wound with the separator and the insulating layer interposed therebetween.